REV.	DATE	BY	CHK'D	DESCRIPTION
A	9-13-90	MLL		ADDED D34,D35,R142,R143; CHANGED Q18 FROM J112 TO 2N5638
B	03/14/91	MGA		CHANGE VALUE OF IC7
C				

SIGNATURES:	DATE:	1880 BORREGA DR. ST. LOUIS, MISSOURI 63146
DRAWN: ML	6-26-90	
CHK'D: TEK	7-26-90	PROJECT NAME: G-130CXL/XLH
APP'D: TEK	7-26-90	
ISSUED:	7-26-90	DRAWING NAME: PRE-AMP SCHEMATIC
PLOT DATE:	03/14/91	
PLOT TIME:	08:11:36	DRAWING 16-130-01 (XL) NO 16-131-01 (XLH)
FILE NAME:	-13001B	SCALE: NONE SHEET: 1 of 2

DESIGNATOR	DESCRIPTION	PART NO.
AP-1	10K TRIM	71-103-02
D1,2,4,7,10,13, 21,22,34,35	1N754	21A754-01
D3,6,9,12	1N746	21A746-01
D5,8,11,14,16, 18,19,23-26, 28,29,32,33	1N914	21A914-01
D15,17	1N4737	21A437-01
D20	YELLOW LED	21-226-01
D27,31	RED LED	21-224-01
D30	GREEN LED	21-223-01
IC1-6,8,9,12	4558	37-458-01
IC10	NE5532	37-532-01
IC11	MN3007	37-307-01
IC14	MN3101	37-301-01
J1,2	1/4"CLIFF T/S	39-117-01
J3,4	1/4"CLIFF T/S	39-116-01
J5-8	.187" FASTON TAB	17-894-01
J9	11 PIN HEADER	17-310-11
P1,13	100KA	70-104-23
P2,6,9	50KL	70-133-01
P3	50KBA	70-503-23
P4	250CL	70-306-01
P5,10	10KA	70-103-22
P7	50KA	70-503-22
P8	2KA	70-202-22
P11,12	10KL	70-103-01
Q1-7,14,15,	J112	96-111-01
Q8,9	2N5210	96-510-01
Q10,11	MPSA96	96-506-01
Q12,13	2N5087	96-587-01
Q16,17	MPS-A55	96-055-01
Q18	2N5638	96-538-01
S1-4	MINI DPDT SWITCH	88-302-01

TEST POINTS	VOLTAGE	WAVE	VOLTAGE	WAVE	SPEC. CONDITIONS
1	170mVp-p	∿	60mVp-p	∿	
2	.92Vp-p	∿	0	—	
3	15Vp-p	⊓	0	—	
4	15Vp-p	⊓	0	—	
5	4Vp-p	⊓	0	—	
6	3Vp-p	⊓	0	—	
7	0	—	1Vdc	—	
8	0	—	.75Vp-p	∿	
9	.75Vp-p	∿	.7Vp-p	∿	FX Level 'Hot'
10	3Vp-p	∿	.75Vp-p	∿	
11	10Vp-p	⊓	8Vp-p	∿	
12	6Vp-p	⊓	8Vp-p	∿	
13	3Vp-p	∿	.75Vp-p	∿	
14	3Vp-p	∿	.7Vp-p	∿	
15	3Vp-p	∿	3Vp-p	∿	93Hz w/note @ 0° .13Hz w/note @ 90°
16	15Vp-p	⊓	15Vp-p	⊓	depth @ 10°
17	-15Vdc	—	0Vdc	—	
18	0Vdc	—	-15Vdc	—	Chorus off
18	0Vdc	—	-15Vdc	—	Chorus on

* Modulated between 83Hz and 240Hz

CHAN A: VOL & GAIN @ 10; TONES @ 5; 30mVp-p 1 kHz INPUT

CHAN B: VOL & GAIN @ 10; TONES @ 5; BRIGHT OFF; 30mVp-p 1 kHz INPUT

NOTES

1) CAUTION: SHOCK HAZARD!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.

2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.

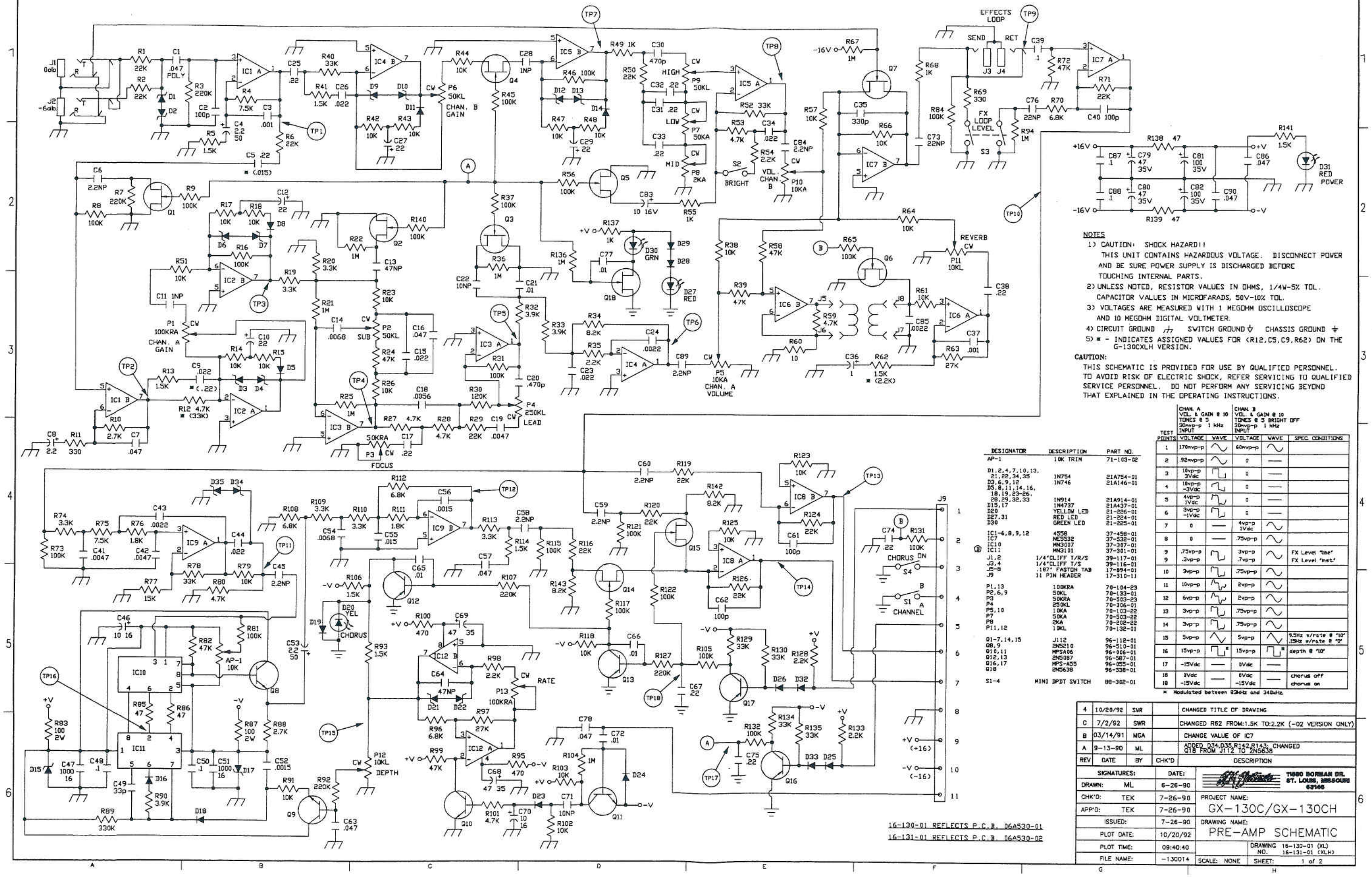
3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.

4) CIRCUIT GROUND ⏚ SWITCH GROUND ⏚ CHASSIS GROUND ⏚

5) * - INDICATES ASSIGNED VALUES FOR (R12,C5,C9) ON THE G-130CXLH VERSION.

CAUTION:

THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.



NOTES

1) CAUTION: SHOCK HAZARD!!
   THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.
4) CIRCUIT GROUND ⏚ SWITCH GROUND ⏚ CHASSIS GROUND ⏚
5) * - INDICATES ASSIGNED VALUES FOR (R12,C5,C9,R62) ON THE G-130CXLH VERSION.

CAUTION:
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

TEST POINTS	CHAN. A VOL. & GAIN @ 10 TONES @ 5 30mvp-p 1 kHz INPUT VOLTAGE	WAVE	CHAN. B VOL. & GAIN @ 10 TONES @ 5 BRIGHT OFF 30mvp-p 1 kHz INPUT VOLTAGE	WAVE	SPEC CONDITIONS
1	170mvp-p	~	60mvp-p	~	
2	.92mvp-p	~	0	—	
3	10vp-p 3Vdc	⊓	0	—	
4	10vp-p -3Vdc	⊓	0	—	
5	4vp-p 1Vdc	⊓	0	—	
6	3vp-p -1Vdc	⊓	0	—	
7	0	—	4vp-p 1Vdc	~	
8	0	—	.75vp-p	~	
9	.75vp-p .3vp-p	⊓	3vp-p .7vp-p	~	FX Level 'fine' FX Level 'mst.'
10	3vp-p	⊓	.75vp-p	~	
11	10vp-p	⊓	2vp-p	~	
12	6vp-p	⊓	2vp-p	~	
13	3vp-p	⊓	.75vp-p	~	
14	3vp-p	⊓	.75vp-p	~	
15	5vp-p	⊓	5vp-p	⊓	9.5Hz w/rate @ "10" .15Hz w/rate @ "0"
16	15vp-p	⊓*	15vp-p	⊓*	depth @ "10"
17	-15Vdc	—	8Vdc	—	
18	9Vdc	—	8Vdc	—	chorus off
19	-15Vdc	—	-15Vdc	—	chorus on

* Modulated between 83Hz and 340Hz.

DESIGNATOR	DESCRIPTION	PART NO.
AP-1	10K TRIM	71-103-02
D1,2,4,7,10,13, 21,22,34,35	1N754	21A754-01
D3,6,9,12	1N746	21A146-01
D5,8,11,14,16, 18,19,23-26, 28,29,32,33	1N914	21A914-01
D15,17	1N4737	21A437-01
D20	YELLOW LED	21-226-01
D27,31	RED LED	21-224-01
D30	GREEN LED	21-225-01
IC1-6,8,9,12	4558	37-458-01
IC7	NE5532	37-532-01
IC10	MN3007	37-307-01
IC11	MN3101	37-301-01
J1,2	1/4"CLIFF T/R/S	39-117-01
J3,4	1/4"CLIFF T/S	39-116-01
J5-8	.187" FASTON TAB	17-894-01
J9	11 PIN HEADER	17-310-11
P1,13	100KRA	70-104-23
P2,6,9	50KL	70-133-01
P3	50KRA	70-503-23
P4	250KL	70-306-01
P5,10	10KA	70-103-22
P7	50KA	70-503-22
P8	2KA	70-202-22
P11,12	10KL	70-132-01
Q1-7,14,15	J112	96-112-01
Q8,9	2N5210	96-510-01
Q10,11	MPSA06	96-006-01
Q12,13	2N5087	96-587-01
Q16,17	MPS-A55	96-055-01
Q18	2N5638	96-536-01
S1-4	MINI DPDT SWITCH	88-302-01

16-130-01 REFLECTS P.C.B. 06A530-01
16-131-01 REFLECTS P.C.B. 06A530-02

REV	DATE	BY	CHK'D	DESCRIPTION
4	10/20/92	SWR		CHANGED TITLE OF DRAWING
C	7/2/92	SWR		CHANGED R62 FROM:1.5K TO:2.2K (-02 VERSION ONLY)
B	03/14/91	MCA		CHANGE VALUE OF IC7
A	9-13-90	ML		ADDED D34,D35,R142,R143; CHANGED Q18 FROM J112 TO 2N5638

SIGNATURES:		DATE:
DRAWN:	ML	6-26-90
CHK'D:	TEK	7-26-90
APP'D:	TEK	7-26-90
ISSUED:		7-26-90
PLOT DATE:		10/20/92
PLOT TIME:		09:40:40
FILE NAME:		-130014

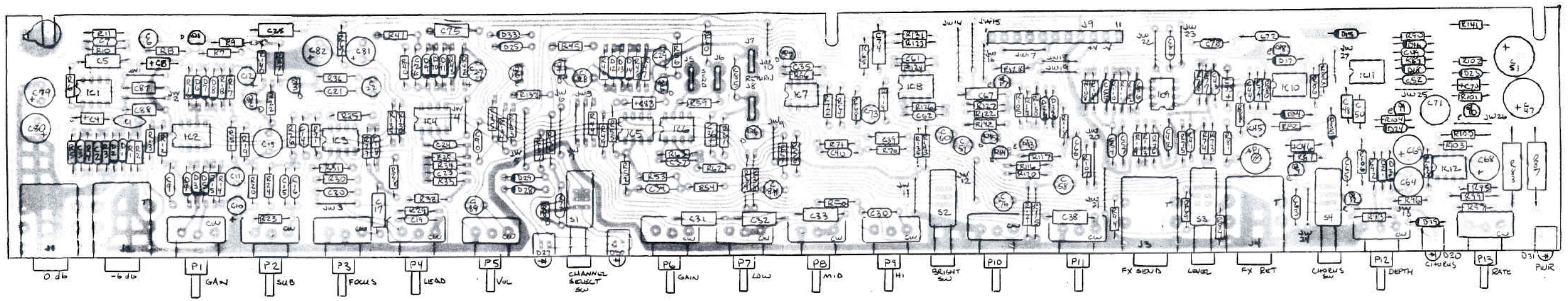
7680 BORMAN DR.
ST. LOUIS, MISSOURI
63146

PROJECT NAME: GX-130C/GX-130CH

DRAWING NAME: PRE-AMP SCHEMATIC

DRAWING NO. 16-130-01 (XL) 16-131-01 (XLH)

SCALE: NONE SHEET: 1 of 2



DESIGNATOR	DESCRIPTION	PART NUMBER
R1	22K	76-223-01
R2	22K	76-223-01
R3	220K	76-224-01
R4	7.5K	76-752-01
R5	1.5K	76-152-01
R6	22K	76-223-01
R7	220K	76-224-01
R8	100K	76-104-01
R9	100K	76-104-01
R10	2.7K	76-272-01
R11	330	76-331-01
R12	4.7K (33K)	76-472-01 (76-333-01)
R13	1.5K	76-152-01
R14	10K	76-103-01
R15	10K	76-103-01
R16	100K	76-104-01
R17	10K	76-103-01
R18	10K	76-103-01
R19	3.3K	76-332-01
R20	3.3K	76-332-01
R21	1M	76-105-01
R22	1M	76-105-01
R23	10K	76-103-01
R24	47K	76-473-01
R25	1M	76-105-01
R26	10K	76-103-01
R27	4.7K	76-472-01
R28	4.7K	76-472-01
R29	22K	76-223-01
R30	120K	76-124-01
R31	100K	76-104-01
R32	3.9K	76-392-01
R33	3.9K	76-392-01
R34	8.2K	76-822-01
R35	2.2K	76-222-01
R36	1M	76-105-01
R37	100K	76-104-01
R38	10K	76-103-01
R39	47K	76-473-01
R40	33K	76-333-01
R41	1.5K	76-152-01
R42	10K	76-103-01
R43	10K	76-103-01
R44	10K	76-103-01
R45	100K	76-104-01
R46	100K	76-104-01
R47	10K	76-103-01
R48	10K	76-103-01
R49	1K	76-102-01
R50	22K	76-223-01
R51	10K	76-103-01
R52	33K	76-333-01
R53	4.7K	76-472-01
R54	2.2K	76-222-01
R55	1K	76-102-01
R56	100K	76-104-01
R57	10K	76-103-01
R58	47K	76-473-01
R59	4.7K	76-472-01
R60	10	76-100-01
R61	10K	76-103-01
③ R62	1.5K (2.2K)	76-152-01 (76-222-01)
R63	27K	76-273-01
R64	10K	76-103-01
R65	100K	76-104-01
R66	10K	76-103-01
R67	1M	76-105-01
R68	1K	76-102-01
R69	330	76-331-01
R70	6.8K	76-682-01
R71	22K	76-223-01
R72	47K	76-473-01
R73	100K	76-104-01
R74	3.3K	76-332-01
R75	7.5K	76-752-01
R76	1.8K	76-182-01
R77	15K	76-153-01
R78	33K	76-333-01
R79	10K	76-103-01
R80	4.7K	76-472-01
R81	100K	76-104-01
R82	47K	76-473-01
R83	100/2W	78-101-01
R84	100K	76-104-01
R85	47	76-470-01
R86	47	76-470-01
R87	100/2W	78-101-01
R88	2.7K	76-272-01
R89	330K	76-334-01
R90	3.9K	76-392-01
R91	10K	76-103-01
R92	220K	76-224-01
R93	1.5K	76-152-01
R94	1M	76-105-01
R95	470	76-471-01
R96	6.8K	76-682-01
R97	27K	76-273-01
R98	2.2K	76-222-01
R99	47K	76-473-01
R100	470	76-471-01
R101	4.7K	76-472-01
R102	10K	76-103-01
R103	10K	76-103-01
R104	1M	76-105-01
R105	100K	76-104-01
R106	1.5K	76-152-01
R107	220K	76-224-01
R108	6.8K	76-682-01
R109	3.3K	76-332-01
R110	3.3K	76-332-01
R111	1.8K	76-182-01
R112	6.8K	76-682-01
R113	3.3K	76-332-01
R114	1.5K	76-152-01
R115	100K	76-104-01
R116	22K	76-223-01
R117	100K	76-104-01
R118	10K	76-103-01
R119	22K	76-223-01
R120	22K	76-223-01
R121	100K	76-104-01
R122	100K	76-104-01
R123	10K	76-103-01
R124	22K	76-223-01
R125	10K	76-103-01
R126	22K	76-223-01
R127	220K	76-224-01
R128	2.2K	76-222-01
R129	33K	76-333-01
R130	33K	76-333-01
R131	100K	76-104-01
R132	100K	76-104-01
R133	2.2K	76-222-01
R134	33K	76-333-01
R135	33K	76-333-01
R136	1M	76-105-01
R137	1K	76-102-01
R138	47	76-470-01
R139	47	76-470-01
R140	100K	76-104-01
R141	1.5K	76-152-01
R142	8.2K	76-822-01
R143	8.2K	76-822-01
JW 1-27	JUMPER	76-000-05

DESIGNATOR	DESCRIPTION	PART NUMBER
C1	.047 POLY	10-473-03
C2	100P	10A101-21
C3	.001	10A102-11
C4	2.2/50	12A225-51
C5	.22 (.015)	10A224-01 (10A153-01)
C6	2.2 N.P.	12-225-81
C7	.047	10A473-11
C8	2.2/50	12A225-51
C9	.022 (.22)	10A223-01 (10A224-01)
C10	22/35	12-226-32
C11	1 N.P.	12-105-81
C12	22/35	12-226-32
C13	47 N.P.	12-476-81
C14	.0068	10A682-01
C15	.022	10A223-01
C16	.047	10A473-11
C17	.22	10A224-01
C18	.0056	10A562-01
C19	.0047	10A472-01
C20	470P	10A471-11
C21	.01	10A103-11
C22	10 N.P.	12-106-81
C23	.022	10A223-01
C24	.0022	10A222-01
C25	.22	10A224-01
C26	.022	10A223-01
C27	22/35	12-226-32
C28	1 N.P.	12-105-81
C29	22/35	12-226-32
C30	470P	10A471-11
C31	.22	10A224-01
C32	.22	10A224-01
C33	.22	10A224-01
C34	.022	10A223-01
C35	330P	10A331-11
C36	1/50	12A105-51
C37	.001	10A102-11
C38	.22	10A224-01
C39	.1	10A104-01
C40	100P	10A101-21
C41	.0047	10A472-01
C42	.0047	10A472-01
C43	.0022	10A222-01
C44	.022	10A223-01
C45	2.2 N.P.	12-225-81
C46	10/16	12A106-11
C47	1000/16	12-108-12
C48	.1	10A104-01
C49	33P	10A330-21
C50	.1	10A104-01
C51	1000/16	12-108-12
C52	.0015	10A152-01
C53	2.2/50	12A225-51
C54	.0068	10A682-01
C55	.015	10A153-01
C56	.0015	10A152-01
C57	.047	10A473-11
C58	2.2 N.P.	12-225-81
C59	2.2 N.P.	12-225-81
C60	2.2 N.P.	12-225-81
C61	100P	10A101-21
C62	100P	10A101-21
C63	.047	10A473-11
C64	47 N.P.	12-476-81
C65	.01	10A103-11
C66	.01	10A103-11
C67	.22	10A224-01
C68	47/35	12-476-32
C69	47/35	12-476-32
C70	10/16	12A106-11
C71	10 N.P.	12-106-81
C72	.01	10A103-11

DESIGNATOR	DESCRIPTION	PART NUMBER
C73	22 N.P.	12-226-82
C74	.22	10A224-01
C75	.22	10A224-01
C76	22 N.P.	12-226-82
C77	.01	10A103-11
C78	.047	10A473-11
C79	47/35	12-476-32
C80	47/35	12-476-32
C81	100/35	12-107-32
C82	100/35	12-107-32
C83	10/16	12A106-11
C84	2.2 N.P.	12-225-81
C85	.0022	10A222-01
C86	.047	10A473-11
C87	.1	10A104-01
C88	.1	10A104-01
C89	2.2 N.P.	12-225-81
C90	.047	10A473-11
D1	1N754	21A754-01
D2	1N754	21A754-01
D3	1N746	21A146-01
D4	1N754	21A754-01
D5	1N914	21A914-01
D6	1N746	21A146-01
D7	1N754	21A754-01
D8	1N914	21A914-01
D9	1N746	21A146-01
D10	1N754	21A754-01
D11	1N914	21A914-01
D12	1N746	21A146-01
D13	1N754	21A754-01
D14	1N914	21A914-01
D15	1N4737	21A437-01
D16	1N914	21A914-01
D17	1N4737	21A437-01
D18	1N914	21A914-01
D19	1N914	21A914-01
D20	YELLOW LED	21-226-01
D21	1N754	21A754-01
D22	1N754	21A754-01
D23	1N914	21A914-01
D24	1N914	21A914-01
D25	1N914	21A914-01
D26	1N914	21A914-01
D27	RED LED	21-224-01
D28	1N914	21A914-01
D29	1N914	21A914-01
D30	GREEN LED	21-225-01
D31	RED LED	21-224-01
D32	1N914	21A914-01
D33	1N914	21A914-01
D34	IN754	21A754-01
D35	IN754	21A754-01
IC1	4558	37-458-01
IC2	4558	37-458-01
IC3	4558	37-458-01
IC4	4558	37-458-01
IC5	4558	37-458-01
IC6	4558	37-458-01
③ IC7	NE5532	37-532-01
IC8	4558	37-458-01
IC9	4558	37-458-01
IC10	MN3007	37-307-01
IC11	MN3101	37-301-01
IC12	4558	37-458-01

DESIGNATOR	DESCRIPTION	PART NUMBER
P1	100KRA	70-104-23
P2	50KL	70-133-01
P3	50KRA	70-503-23
P4	250KL	70-306-01
P5	10KA	70-103-22
P6	50KL	70-133-01
P7	50KA	70-503-22
P8	2KA	70-202-22
P9	50KL	70-133-01
P10	10KA	70-103-22
P11	10KL	70-132-01
P12	10KL	70-132-01
P13	100KRA	70-104-23
AP-1	10K TRIM	71-103-02
Q1	J112	96-112-01
Q2	J112	96-112-01
Q3	J112	96-112-01
Q4	J112	96-112-01
Q5	J112	96-112-01
Q6	J112	96-112-01
Q7	J112	96-112-01
Q8	2N5210	96-510-01
Q9	2N5210	96-510-01
Q10	MPSA06	96-006-01
Q11	MPSA06	96-006-01
Q12	2N5087	96-587-01
Q13	2N5087	96-587-01
Q14	J112	96-112-01
Q15	J112	96-112-01
Q16	MPS-A55	96-055-01
Q17	MPS-A55	96-055-01
Q18	2N5638	96-556-01
J1	1/4"CLIFF T/R/S	39-117-01
J2	1/4"CLIFF T/R/S	39-117-01
J3	1/4"CLIFF T/S	39-116-01
J4	1/4"CLIFF T/S	39-116-01
J5	.187" FASTON TAB	17-894-01
J6	.187" FASTON TAB	17-894-01
J7	.187" FASTON TAB	17-894-01
J8	.187" FASTON TAB	17-894-01
J9	11 PIN HEADER	17-310-11
S1-4	MINI DPDT SWITCH	88-302-01

NOTES:
1) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE IN OHMS 1/4 WATT, 5%. ALL CAPACITORS ARE IN MICROFARADS AND HAVE A 50 VOLT RATING (MINIMUM).
2) VALUES IN PARENTHESES APPLY TO G-130CXLH VERSION.

SCHEM SHEET	
③	CHG'D R62 FROM 1.5K 76-152-01 TO: 2.2K 76-222-01 (-02 VERSION ONLY)
②	CHG'D I.C.1 FROM: 4558 (P/N 37-458-01) TO: NE5532 (P/N 37-532-01)
1	ART REV. TO B' ADD D31, D33, R134, R135 CHANGE CR8 FROM 1N1E TO GA3658

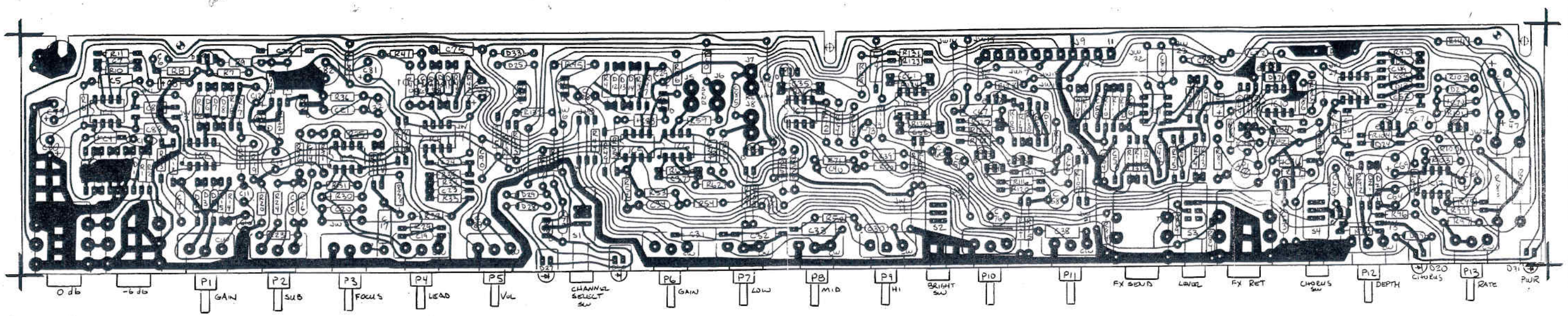
TOLERANCES (UNLESS AS NOTED)	REVISIONS NO	DATE	BY
DECIMAL	①	9-14-90	
.x	②	3-15-91	
FRACTIONAL	③	7-7-92	TJK
.x			
ANGULAR			
.x			

S. L. M. ELECTRONICS

GX-130C/M . PREAMP

DRAWN BY	SCALE	MATERIAL
TJK 6/21/90	1.7X	
CHK'D	DATE	DRAWING NO
TRACED	APP'D	07-530-01
		07-530-02

07-530-01 PICT
GX-130C/M PREAMP



DESIGNATOR	DESCRIPTION	PART NUMBER	
R1	22K	76-223-01	
R2	22K	76-223-01	
R3	220K	76-224-01	
R4	7.5K	76-752-01	
R5	1.5K	76-152-01	
R6	22K	76-223-01	
R7	220K	76-224-01	
R8	100K	76-104-01	
R9	100K	76-104-01	
R10	2.7K	76-272-01	
R11	330	76-331-01	
R12	4.7K (33K)	76-472-01	(76-333-01)
R13	1.5K	76-152-01	
R14	10K	76-103-01	
R15	10K	76-103-01	
R16	100K	76-104-01	
R17	10K	76-103-01	
R18	10K	76-103-01	
R19	3.3K	76-332-01	
R20	3.3K	76-332-01	
R21	1M	76-105-01	
R22	1M	76-105-01	
R23	10K	76-103-01	
R24	47K	76-473-01	
R25	1M	76-105-01	
R26	10K	76-103-01	
R27	4.7K	76-472-01	
R28	4.7K	76-472-01	
R29	22K	76-223-01	
R30	120K	76-124-01	
R31	100K	76-104-01	
R32	3.9K	76-392-01	
R33	3.9K	76-392-01	
R34	8.2K	76-822-01	
R35	2.2K	76-222-01	
R36	1M	76-105-01	
R37	100K	76-104-01	
R38	10K	76-103-01	
R39	47K	76-473-01	
R40	33K	76-333-01	
R41	1.5K	76-152-01	
R42	10K	76-103-01	
R43	10K	76-103-01	
R44	10K	76-103-01	
R45	100K	76-104-01	
R46	100K	76-104-01	
R47	10K	76-103-01	
R48	10K	76-103-01	
R49	1K	76-102-01	
R50	22K	76-223-01	
R51	10K	76-103-01	
R52	33K	76-333-01	
R53	4.7K	76-472-01	
R54	2.2K	76-222-01	
R55	1K	76-102-01	
R56	100K	76-104-01	
R57	10K	76-103-01	
R58	47K	76-473-01	
R59	4.7K	76-472-01	
R60	10	76-100-01	
R61	10K	76-103-01	
R62	1.5K	76-152-01	
R63	27K	76-273-01	
R64	10K	76-103-01	
R65	100K	76-104-01	
R66	10K	76-103-01	
R67	1M	76-105-01	
R68	1K	76-102-01	
R69	330	76-331-01	
R70	6.8K	76-682-01	
R71	22K	76-223-01	

DESIGNATOR	DESCRIPTION	PART NUMBER
R72	47K	76-473-01
R73	100K	76-104-01
R74	3.3K	76-332-01
R75	7.5K	76-752-01
R76	1.8K	76-182-01
R77	15K	76-153-01
R78	33K	76-333-01
R79	10K	76-103-01
R80	4.7K	76-472-01
R81	100K	76-104-01
R82	47K	76-473-01
R83	100/2W	78-101-01
R84	100K	76-104-01
R85	47	76-470-01
R86	47	76-470-01
R87	100/2W	78-101-01
R88	2.7K	76-272-01
R89	330K	76-334-01
R90	3.9K	76-392-01
R91	10K	76-103-01
R92	220K	76-224-01
R93	1.5K	76-152-01
R94	1M	76-105-01
R95	470	76-471-01
R96	6.8K	76-682-01
R97	27K	76-273-01
R98	2.2K	76-222-01
R99	47K	76-473-01
R100	470	76-471-01
R101	4.7K	76-472-01
R102	10K	76-103-01
R103	10K	76-103-01
R104	1M	76-105-01
R105	100K	76-104-01
R106	1.5K	76-152-01
R107	220K	76-224-01
R108	6.8K	76-682-01
R109	3.3K	76-332-01
R110	3.3K	76-332-01
R111	1.8K	76-182-01
R112	6.8K	76-682-01
R113	3.3K	76-332-01
R114	1.5K	76-152-01
R115	100K	76-104-01
R116	22K	76-223-01
R117	100K	76-104-01
R118	10K	76-103-01
R119	22K	76-223-01
R120	22K	76-223-01
R121	100K	76-104-01
R122	100K	76-104-01
R123	10K	76-103-01
R124	22K	76-223-01
R125	10K	76-103-01
R126	22K	76-223-01
R127	220K	76-224-01
R128	2.2K	76-222-01
R129	33K	76-333-01
R130	33K	76-333-01
R131	100K	76-104-01
R132	100K	76-104-01
R133	2.2K	76-222-01
R134	33K	76-333-01
R135	33K	76-333-01
R136	1M	76-105-01
R137	1K	76-102-01
R138	47	76-470-01
R139	47	76-470-01
R140	100K	76-104-01
R141	1.5K	76-152-01
R142	8.2K	76-822-01
R143	8.2K	76-822-01
JW 1-27	JUMPER	76-000-05

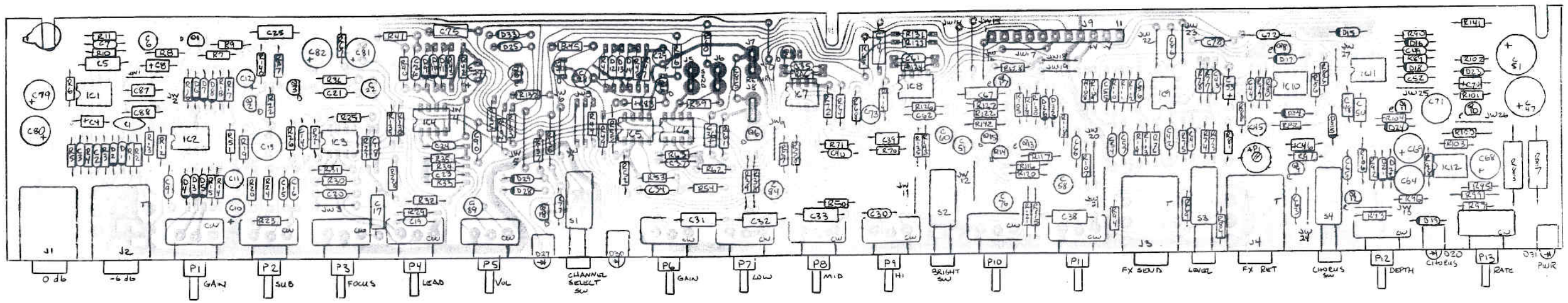
DESIGNATOR	DESCRIPTION	PART NUMBER	
C1	.047 POLY	10-473-03	
C2	100P	10A101-21	
C3	.001	10A102-01	
C4	2.2/50	12A225-51	
C5	.22 (.015)	10A224-01	(10A153-01)
C6	2.2 N.P.	12-225-81	
C7	.047	10A473-11	
C8	2.2/50	12A225-51	
C9	.022 (.22)	10A223-01	(10A224-01)
C10	22/35	12-226-32	
C11	1 N.P.	12-105-81	
C12	22/35	12-226-32	
C13	47 N.P.	12-476-81	
C14	.0068	10A682-01	
C15	.022	10A223-01	
C16	.047	10A473-11	
C17	.22	10A224-01	
C18	.0056	10A562-01	
C19	.0047	10A472-01	
C20	470P	10A471-11	
C21	.01	10A103-11	
C22	10 N.P.	12-106-81	
C23	.022	10A223-01	
C24	.0022	10A222-01	
C25	.22	10A224-01	
C26	.022	10A223-01	
C27	22/35	12-226-32	
C28	1 N.P.	12-105-81	
C29	22/35	12-226-32	
C30	470P	10A471-11	
C31	.22	10A224-01	
C32	.22	10A224-01	
C33	.22	10A224-01	
C34	.022	10A223-01	
C35	330P	10A331-11	
C36	1/50	12A105-51	
C37	.001	10A102-01	
C38	.22	10A224-01	
C39	.1	10A104-01	
C40	100P	10A101-21	
C41	.0047	10A472-01	
C42	.0047	10A472-01	
C43	.0022	10A222-01	
C44	.022	10A223-01	
C45	2.2 N.P.	12-225-81	
C46	10/16	12A106-11	
C47	1000/16	12-108-12	
C48	.1	10A104-01	
C49	33P	10A330-21	
C50	.1	10A104-01	
C51	1000/16	12-108-12	
C52	.0015	10A152-01	
C53	2.2/50	12-225-51	
C54	.0068	10A682-01	
C55	.015	10A153-01	
C56	.0015	10A152-01	
C57	.047	10A473-11	
C58	2.2 N.P.	12-225-81	
C59	2.2 N.P.	12-225-81	
C60	2.2 N.P.	12-225-81	
C61	100P	10A101-21	
C62	100P	10A101-21	
C63	.047	10A473-11	
C64	47 N.P.	12-476-81	
C65	.01	10A103-11	
C66	.01	10A103-11	
C67	.22	10A224-01	
C68	47/35	12-476-32	
C69	47/35	12-476-32	
C70	10/16	12A106-11	
C71	10 N.P.	12-106-81	
C72	.01	10A103-11	

DESIGNATOR	DESCRIPTION	PART NUMBER	
C73	22 N.P.	12-226-82	
C74	.22	10A224-01	
C75	.22	10A224-01	
C76	22 N.P.	12-226-82	
C77	.01	10A103-11	
C78	.047	10A473-11	
C79	47/35	12-476-32	
C80	47/35	12-476-32	
C81	100/35	12-107-32	
C82	100/35	12-107-32	
C83	10/16	12A106-11	
C84	2.2 N.P.	12-225-81	
C85	.0022	10A222-01	
C86	.047	10A473-11	
C87	.1	10A104-01	
C88	.1	10A104-01	
C89	2.2 N.P.	12-225-81	
C90	.047	10A473-11	
D1	1N754	21A754-01	
D2	1N754	21A754-01	
D3	1N746	21A146-01	
D4	1N754	21A754-01	
D5	1N914	21A914-01	
D6	1N746	21A146-01	
D7	1N754	21A754-01	
D8	1N914	21A914-01	
D9	1N746	21A146-01	
D10	1N754	21A754-01	
D11	1N914	21A914-01	
D12	1N746	21A146-01	
D13	1N754	21A754-01	
D14	1N914	21A914-01	
D15	1N4737	21A437-01	
D16	1N914	21A914-01	
D17	1N4737	21A437-01	
D18	1N914	21A914-01	
D19	1N914	21A914-01	
D20	YELLOW LED	21-226-01	
D21	1N754	21A754-01	
D22	1N754	21A754-01	
D23	1N914	21A914-01	
D24	1N914	21A914-01	
D25	1N914	21A914-01	
D26	1N914	21A914-01	
D27	RED LED	21-224-01	
D28	1N914	21A914-01	
D29	1N914	21A914-01	
D30	GREEN LED	21-225-01	
D31	RED LED	21-224-01	
D32	1N914	21A914-01	
D33	1N914	21A914-01	
D34	IN754	21A754-01	
D35	IN754	21A754-01	
IC1	4558	37-458-01	
IC2	4558	37-458-01	
IC3	4558	37-458-01	
IC4	4558	37-458-01	
IC5	4558	37-458-01	
IC6	4558	37-458-01	
IC7	4558	37-458-01	
IC8	4558	37-458-01	
IC9	4558	37-458-01	
IC10	MN3007	37-307-01	
IC11	MN3101	37-301-01	
IC12	4558	37-458-01	

DESIGNATOR	DESCRIPTION	PART NUMBER
P1	100KRA	70-104-23
P2	50KL	70-133-01
P3	50KRA	70-503-23
P4	250KL	70-306-01
P5	10KA	70-103-22
P6	50KL	70-133-01
P7	50KA	70-503-22
P8	2KA	70-202-22
P9	50KL	70-133-01
P10	10KA	70-103-22
P11	10KL	70-132-01
P12	10KL	70-132-01
P13	100KRA	70-104-23
AP-1	10K TRIM	71-103-02
Q1	J112	96-112-01
Q2	J112	96-112-01
Q3	J112	96-112-01
Q4	J112	96-112-01
Q5	J112	96-112-01
Q6	J112	96-112-01
Q7	J112	96-112-01
Q8	2N5210	96-510-01
Q9	2N5210	96-510-01
Q10	MPSA06	96-006-01
Q11	MPSA06	96-006-01
Q12	2N5087	96-587-01
Q13	2N5087	96-587-01
Q14	J112	96-112-01
Q15	J112	96-112-01
Q16	MPS-A55	96-055-01
Q17	MPS-A55	96-055-01
Q18	2N5638	96-538-01
J1	1/4"CLIFF T/R/S	39-117-01
J2	1/4"CLIFF T/R/S	39-117-01
J3	1/4"CLIFF T/S	39-116-01
J4	1/4"CLIFF T/S	39-116-01
J5	.187" FASTON TAB	17-894-01
J6	.187" FASTON TAB	17-894-01
J7	.187" FASTON TAB	17-894-01
J8	.187" FASTON TAB	17-894-01
J9	11 PIN HEADER	17-310-11
S1-4	MINI DPDT SWITCH	88-302-01

NOTES:
1) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE IN OHMS 1/4 WATT, 5%. ALL CAPACITORS ARE IN MICROFARADS AND HAVE A 50 VOLT RATING (MINIMUM).
2) VALUES IN PARENTHESES APPLY TO G-130CXLH VERSION.

1	ART REV. TO B' ADD D31, D35, R134, R35 CHANGE Q18 FROM J112 TO 2N5638			
TOLERANCES (EXCEPT AS NOTED)	REVISIONS NO	DATE	BY	S. L. M. ELECTRONICS
DECIMAL ±	1	9-14-90		G-130C XL/XLH PREAMP
FRACTIONAL ±	2			
ANGULAR ±	3			DRAWN BY: 9/21/90 SCALE: 1:1 7X MATERIAL
	4			CHK'D DATE
	5			TRACED APP'D DRAWING NO: 07-530-01(XL) 07-530-02(XLH)



DESIGNATOR	DESCRIPTION	PART NUMBER
R1	22K	76-223-01
R2	22K	76-223-01
R3	220K	76-224-01
R4	7.5K	76-752-01
R5	1.5K	76-152-01
R6	22K	76-223-01
R7	220K	76-224-01
R8	100K	76-104-01
R9	100K	76-104-01
R10	2.7K	76-272-01
R11	330	76-331-01
R12	4.7K (33K)	76-472-01 (76-333-01)
R13	1.5K	76-152-01
R14	10K	76-103-01
R15	10K	76-103-01
R16	100K	76-104-01
R17	10K	76-103-01
R18	10K	76-103-01
R19	3.3K	76-332-01
R20	3.3K	76-332-01
R21	1M	76-105-01
R22	1M	76-105-01
R23	10K	76-103-01
R24	47K	76-473-01
R25	1M	76-105-01
R26	10K	76-103-01
R27	4.7K	76-472-01
R28	4.7K	76-472-01
R29	22K	76-223-01
R30	120K	76-124-01
R31	100K	76-104-01
R32	3.9K	76-392-01
R33	3.9K	76-392-01
R34	8.2K	76-822-01
R35	2.2K	76-222-01
R36	1M	76-105-01
R37	100K	76-104-01
R38	10K	76-103-01
R39	47K	76-473-01
R40	33K	76-333-01
R41	1.5K	76-152-01
R42	10K	76-103-01
R43	10K	76-103-01
R44	10K	76-103-01
R45	100K	76-104-01
R46	100K	76-104-01
R47	10K	76-103-01
R48	10K	76-103-01
R49	1K	76-102-01
R50	22K	76-223-01
R51	10K	76-103-01
R52	33K	76-333-01
R53	4.7K	76-472-01
R54	2.2K	76-222-01
R55	1K	76-102-01
R56	100K	76-104-01
R57	10K	76-103-01
R58	47K	76-473-01
R59	4.7K	76-472-01
R60	10	76-100-01
R61	10K	76-103-01
R62	1.5K	76-152-01
R63	27K	76-273-01
R64	10K	76-103-01
R65	100K	76-104-01
R66	10K	76-103-01
R67	1M	76-105-01
R68	1K	76-102-01
R69	330	76-331-01
R70	6.8K	76-682-01
R71	22K	76-223-01
R72	47K	76-473-01
R73	100K	76-104-01
R74	3.3K	76-332-01
R75	7.5K	76-752-01
R76	1.8K	76-182-01
R77	15K	76-153-01
R78	33K	76-333-01
R79	10K	76-103-01
R80	4.7K	76-472-01
R81	100K	76-104-01
R82	47K	76-473-01
R83	100/2W	78-101-01
R84	100K	76-104-01
R85	47	76-470-01
R86	47	76-470-01
R87	100/2W	78-101-01
R88	2.7K	76-272-01
R89	330K	76-334-01
R90	3.9K	76-392-01
R91	10K	76-103-01
R92	220K	76-224-01
R93	1.5K	76-152-01
R94	1M	76-105-01
R95	470	76-471-01
R96	6.8K	76-682-01
R97	27K	76-273-01
R98	2.2K	76-222-01
R99	47K	76-473-01
R100	470	76-471-01
R101	4.7K	76-472-01
R102	10K	76-103-01
R103	10K	76-103-01
R104	1M	76-105-01
R105	100K	76-104-01
R106	1.5K	76-152-01
R107	220K	76-224-01
R108	6.8K	76-682-01
R109	3.3K	76-332-01
R110	3.3K	76-332-01
R111	1.8K	76-182-01
R112	6.8K	76-682-01
R113	3.3K	76-332-01
R114	1.5K	76-152-01
R115	100K	76-104-01
R116	22K	76-223-01
R117	100K	76-104-01
R118	10K	76-103-01
R119	22K	76-223-01
R120	22K	76-223-01
R121	100K	76-104-01
R122	100K	76-104-01
R123	10K	76-103-01
R124	22K	76-223-01
R125	10K	76-103-01
R126	22K	76-223-01
R127	220K	76-224-01
R128	2.2K	76-222-01
R129	33K	76-333-01
R130	33K	76-333-01
R131	100K	76-104-01
R132	100K	76-104-01
R133	2.2K	76-222-01
R134	33K	76-333-01
R135	33K	76-333-01
R136	1M	76-105-01
R137	1K	76-102-01
R138	47	76-470-01
R139	47	76-470-01
R140	100K	76-104-01
R141	1.5K	76-152-01
R142	8.2K	76-822-01
R143	8.2K	76-822-01
JW 1-27	JUMPER	76-000-05

DESIGNATOR	DESCRIPTION	PART NUMBER
C1	.047 POLY	10-473-03
C2	100P	10A101-21
C3	.001	10A102-11
C4	2.2/50	12A225-51
C5	.22 (.015)	10A224-01 (10A153-01)
C6	2.2 N.P.	12-225-81
C7	.047	10A473-11
C8	2.2/50	12A225-51
C9	.022 (.22)	10A223-01 (10A224-01)
C10	22/35	12-226-32
C11	1 N.P.	12-105-81
C12	22/35	12-226-32
C13	47 N.P.	12-476-81
C14	.0068	10A682-01
C15	.022	10A223-01
C16	.047	10A473-11
C17	.22	10A224-01
C18	.0056	10A562-01
C19	.0047	10A472-01
C20	470P	10A471-11
C21	.01	10A103-11
C22	10 N.P.	12-106-81
C23	.022	10A223-01
C24	.0022	10A222-01
C25	.22	10A224-01
C26	.022	10A223-01
C27	22/35	12-226-32
C28	1 N.P.	12-105-81
C29	22/35	12-226-32
C30	470P	10A471-11
C31	.22	10A224-01
C32	.22	10A224-01
C33	.22	10A224-01
C34	.022	10A223-01
C35	330P	10A331-11
C36	1/50	12A105-51
C37	.001	10A102-11
C38	.22	10A224-01
C39	.1	10A104-01
C40	100P	10A101-21
C41	.0047	10A472-01
C42	.0047	10A472-01
C43	.0022	10A222-01
C44	.022	10A223-01
C45	2.2 N.P.	12-225-81
C46	10/16	12A106-11
C47	1000/16	12-108-12
C48	.1	10A104-01
C49	33P	10A330-21
C50	.1	10A104-01
C51	1000/16	12-108-12
C52	.0015	10A152-01
C53	2.2/50	12A225-51
C54	.0068	10A682-01
C55	.015	10A153-01
C56	.0015	10A152-01
C57	.047	10A473-11
C58	2.2 N.P.	12-225-81
C59	2.2 N.P.	12-225-81
C60	2.2 N.P.	12-225-81
C61	100P	10A101-21
C62	100P	10A101-21
C63	.047	10A473-11
C64	47 N.P.	12-476-81
C65	.01	10A103-11
C66	.01	10A103-11
C67	.22	10A224-01
C68	47/35	12-476-32
C69	47/35	12-476-32
C70	10/16	12A106-11
C71	10 N.P.	12-106-81
C72	.01	10A103-11

DESIGNATOR	DESCRIPTION	PART NUMBER
C73	22 N.P.	12-226-82
C74	.22	10A224-01
C75	.22	10A224-01
C76	22 N.P.	12-226-82
C77	.01	10A103-11
C78	.047	10A473-11
C79	47/35	12-476-32
C80	47/35	12-476-32
C81	100/35	12-107-32
C82	100/35	12-107-32
C83	10/16	12A106-11
C84	2.2 N.P.	12-225-81
C85	.0022	10A222-01
C86	.047	10A473-11
C87	.1	10A104-01
C88	.1	10A104-01
C89	2.2 N.P.	12-225-81
C90	.047	10A473-11
D1	1N754	21A754-01
D2	1N754	21A754-01
D3	1N746	21A146-01
D4	1N754	21A754-01
D5	1N914	21A914-01
D6	1N746	21A146-01
D7	1N754	21A754-01
D8	1N914	21A914-01
D9	1N746	21A146-01
D10	1N754	21A754-01
D11	1N914	21A914-01
D12	1N746	21A146-01
D13	1N754	21A754-01
D14	1N914	21A914-01
D15	1N4737	21A437-01
D16	1N914	21A914-01
D17	1N4737	21A437-01
D18	1N914	21A914-01
D19	1N914	21A914-01
D20	YELLOW LED	21-226-01
D21	1N754	21A754-01
D22	1N754	21A754-01
D23	1N914	21A914-01
D24	1N914	21A914-01
D25	1N914	21A914-01
D26	1N914	21A914-01
D27	RED LED	21-224-01
D28	1N914	21A914-01
D29	1N914	21A914-01
D30	GREEN LED	21-225-01
D31	RED LED	21-224-01
D32	1N914	21A914-01
D33	1N914	21A914-01
D34	1N754	21A754-01
D35	1N754	21A754-01
IC1	4558	37-458-01
IC2	4558	37-458-01
IC3	4558	37-458-01
IC4	4558	37-458-01
IC5	4558	37-458-01
IC6	4558	37-458-01
② IC7	NE5532	37-532-01
IC8	4558	37-458-01
IC9	4558	37-458-01
IC10	MN3007	37-307-01
IC11	MN3101	37-301-01
IC12	4558	37-458-01

DESIGNATOR	DESCRIPTION	PART NUMBER
P1	100KRA	70-104-23
P2	50KL	70-133-01
P3	50KRA	70-503-23
P4	250KL	70-306-01
P5	10KA	70-103-22
P6	50KL	70-133-01
P7	50KA	70-503-22
P8	2KA	70-202-22
P9	50KL	70-133-01
P10	10KA	70-103-22
P11	10KL	70-132-01
P12	10KL	70-132-01
P13	100KRA	70-104-23
AP-1	10K TRIM	71-103-02
Q1	J112	96-112-01
Q2	J112	96-112-01
Q3	J112	96-112-01
Q4	J112	96-112-01
Q5	J112	96-112-01
Q6	J112	96-112-01
Q7	J112	96-112-01
Q8	2N5210	96-510-01
Q9	2N5210	96-510-01
Q10	MPSA06	96-006-01
Q11	MPSA06	96-006-01
Q12	2N5087	96-587-01
Q13	2N5087	96-587-01
Q14	J112	96-112-01
Q15	J112	96-112-01
Q16	MPS-A55	96-055-01
Q17	MPS-A55	96-055-01
Q18	2N3638	96-538-01
J1	1/4"CLIFF T/R/S	39-117-01
J2	1/4"CLIFF T/R/S	39-117-01
J3	1/4"CLIFF T/S	39-116-01
J4	1/4"CLIFF T/S	39-116-01
J5	.187" FASTON TAB	17-894-01
J6	.187" FASTON TAB	17-894-01
J7	.187" FASTON TAB	17-894-01
J8	.187" FASTON TAB	17-894-01
J9	11 PIN HEADER	17-310-11
S1-4	MINI DPDT SWITCH	88-302-01

NOTES:
1) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE IN OHMS 1/4 WATT, 5%. ALL CAPACITORS ARE IN MICROFARADS AND HAVE A 50 VOLT RATING (MINIMUM).
2) VALUES IN PARENTHESES APPLY TO G-130CXLH VERSION.

② CHG'D I.C.1 FROM: 4558 (P/N 37-458-01) TO: NE5532 (P/N 37-532-01)
① ART REV. TO 'B' ADD D34, D35, R134, R135
CHANGE Q18 FROM J112 TO 2N3638

TOLERANCES	REVISIONS			S.L.M. ELECTRONICS
(EXCEPT AS NOTED)	NO.	DATE	BY	
DECIMAL ±	①	9-14-90	[illegible]	G-130CXL/XLH PREAMP
FRACTIONAL ±	②	3-15-91	[illegible]	
ANGULAR ±	3			DRAWN BY: [illegible] 6/21/90 · SCALE: 1.7X · MATERIAL
	4			CHK'D · DATE · DRAWING NO: 07-530-01(XL) 07-530-02(XLH)
	5			TRACED · APP'D

RIGHT CHANNEL SAME AS LEFT, ADD 100 TO DESIGNATORS EXCEPT FOR THE FOLLOWING: R7,R8,R34-R44,C3,C4,C5, C15,C17,C20-C26,D3,D12-D21,Q13,J1-J5,J8-J22.

DESIGNATOR	DESCRIPTION	PART NUMBER
AP1,101	500 OHM TRIM	71-501-02
D1,2,5,8	1N746	21A146-01
D101,102,105	1N746	21A146-01
D108	1N746	21A146-01
D3	1N4740	21A440-01
D4,7,18-20	1N914	21A914-01
D104,107	1N914	21A914-01
D6,9,106,109	1N3070	21A370-01
D10,11,110,111	1N5393	21A593-01
D12-15	G1752	21-752-01
D16,17	1N5353	21-553-01
D21	1N4749	21A449-01
Q1,2,3,7,13	MPS A56	96-056-01
Q101,102,103	MPS A56	96-056-01
Q107	MPS A56	96-056-01
Q4,104	2N3440	96-340-01
Q5,105	2N3402	96-342-01
Q6,106	MPS A06	96-006-01
Q8,108	TIP 31C	96-031-03
Q9,109	TIP 32C	96-032-03
Q10,110	MJ15001	96-101-01
Q11,111	MJ15002	96-102-01
Q12,112	J176	96-176-01
J1-5	1/4"CLIFF TRS	39-118-01
J6,106	1/4"CLIFF T/S	39-116-01
J7,107	1/4"CLIFF T/S	39-116-01
J8	11 PIN HEADER	17-310-11
J9-21	.250"FASTON TAB	17-836-01
J22	GROUND LUG	17-500-01

TEST POINTS	VOLTAGE (RMS)	VOLTAGE (DC)
1		-15
2	.32	.7
3		38
4		39
5		4.2
6		.7
7		38.5
8	19	

CONDITIONS: TEST POINTS AND VOLTAGES TO BE SAME FOR BOTH CHANNELS.

EXPORT WIRING

NOTES
1) CAUTION: SHOCK HAZARD!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER ...AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.
4) CIRCUIT GROUND ⏚ SWITCH GROUND ⏚ CHASSIS GROUND ⏚
5) SET AP-1 & AP-101 FOR 3mV ACROSS R26,R27,R126 AND R127.

CAUTION:
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

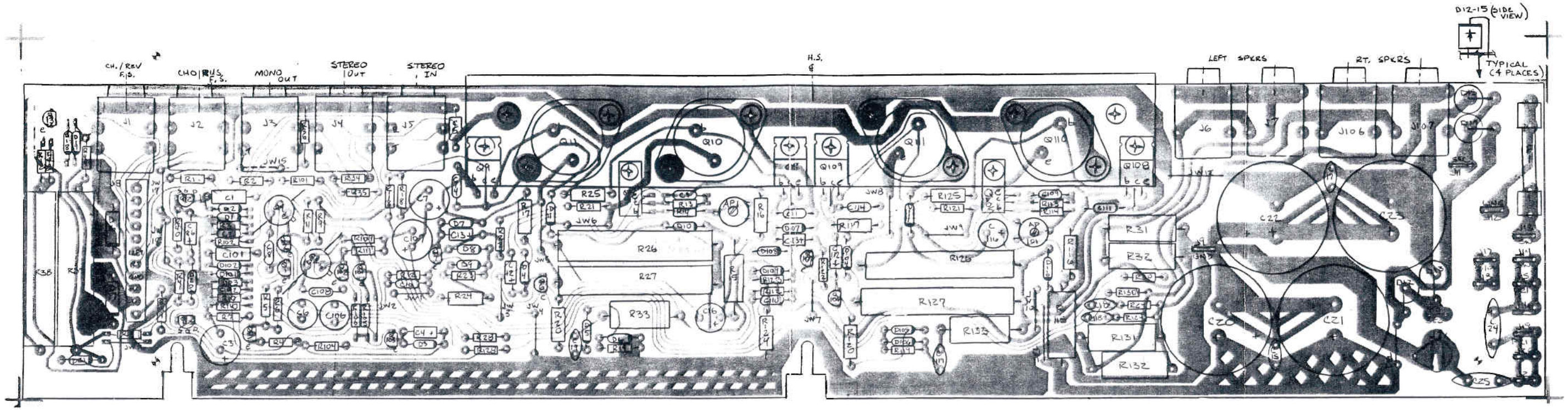
16-130-01 (XL)
16-131-01 (XLH)

REV	DATE	BY	CHK'D	DESCRIPTION
B	03/14/91	MGA		SEE SHEET 1
A	9-13-90	ML		SEE SHEET 1

SIGNATURES:		DATE:
DRAWN:	ML	7/26/90
CHK'D:	TEK	7-26-90
APP'D:	TEK	7-26-90
ORIGINAL ISSUED:		
PLOT DATE:		03/14/91
PLOT TIME:		08:04:31
FILE NAME:		-130011B

11880 BORMAN DR.
ST. LOUIS, MISSOURI
63146

PROJECT NAME: G-130CXL/XLH
DRAWING NAME: SCHEMATIC DRAWING
DRAWING NO. 16-130-01
SCALE: 1:1 SHEET: 2 OF 2



DESIGNATOR	DESCRIPTION	PART NUMBER
R1,101	1K	76-102-01
R2,102	4.7K	76-472-01
R3,103	27K	76-273-01
R4,104	2.7K	76-272-01
R5,105	22	76-220-01
R6,106	22	76-220-01
R7	8.2K	76-822-01
R8	22	76-220-01
R9,109	470	76-471-01
R10,110	680	76-681-01
R11,111	10	76-100-01
R12,112	27K	76-273-01
R13,113	1.5K	76-152-01
R14,114	560	76-561-01
R15,115	2K 2W	78-202-01
R16,116	680 1/2W	77-680-01
R17,117	100 1/2W	77-101-01
R18,118	22	76-220-01
R19,119	33K	76-333-01
R20,120	2.7K 1/2W	77-272-01
R21,121	270	76-271-01
R22,122	270	76-271-01
R23,123	33K	76-333-01
R24,124	2.7K 1/2W	77-272-01
R25,125	100 1/2W	77-101-01
R26,126	.33 10W	78-330-10
R27,127	.33 10W	78-330-10
R28,128	330	76-331-01
R29,129	10	76-100-01
R30,130	22	76-220-01
R31,131	.33 5W	78-330-05
R32,132	.33 5W	78-330-05
R33,133	10 2W	78-100-01
R34	1K	76-102-01
R35	1K	76-102-01
R36	1K	76-102-01
R37	120 10W	78-121-10
R38	120 10W	78-121-10
R39	4.7K	76-472-01
R40	8.2K	76-822-01
R41	2.2M	76-225-01
R42	33K	76-333-01
R43	33K	76-333-01
R44	2.2K	76-222-01
JW1-18	JUMPER	76-000-05
AP1,101	500 OHM TRIM	71-501-02

DESIGNATOR	DESCRIPTION	PART NUMBER
C1,101	.1	10A104-01
C2,102	.0022	10A222-01
C3	220/50	12-227-02
C4	1/50	12A105-51
C5	.1	10A104-01
C6,106	22 N.P.	12-226-81
C7,107	220/50	12-227-02
C8,108	100P	10A101-21
C9,109	.0022	10A222-01
C10,110	100P	10A101-21
C11,111	330P	10A331-11
C12,112	1/50	12A105-51
C13,113	1/50	12A105-51
C14,114	330P	10A331-11
C15	.1 POLY	10-104-03
C16,116	47/35	12-476-32
C17	.1 POLY	10-104-03
C18,118	.022 POLY	10-223-02
C19,119	.047 POLY	10-473-03
C20	4700/50	12-478-52
C21	4700/50	12-478-52
C22	4700/50	12-478-52
C23	4700/50	12-478-52
C24	.0027	10-272-01
C25	.0027	10-272-01
C26	2.2/50	12A225-51
D1,101	1N746	21A146-01
D2,102	1N746	21A146-01
D3	1N4740	21A440-01
D4,104	1N914	21A914-01
D5,105	1N746	21A146-01
D6,106	1N3070	21A370-01
D7,107	1N914	21A914-01
D8,108	1N746	21A146-01
D9,109	1N3070	21A370-01
D10,110	1N5393	21A593-01
D11,111	1N5393	21A593-01
D12	G1752	21-752-01
D13	G1752	21-752-01
D14	G1752	21-752-01
D15	G1752	21-752-01
D16	1N5353	21-553-01
D17	1N5353	21-553-01
D18	1N914	21A914-01
D19	1N914	21A914-01
D20	1N914	21A914-01
D21	1N4749	21A449-01

DESIGNATOR	DESCRIPTION	PART NUMBER
Q1,101	MPS A56	96-056-01
Q2,102	MPS A56	96-056-01
Q3,103	MPS A56	96-056-01
Q4,104	2N3440	96-340-01
Q5,105	2N3402	96-342-01
Q6,106	MPS A06	96-006-01
Q7,107	MPS A56	96-056-01
Q8,108	TIP 31C	96-031-03
Q9,109	TIP 32C	96-032-03
Q10,110	MJ15001	96-101-01
Q11,111	MJ15002	96-102-01
Q12,112	J176	96-176-01
Q13	MPS-A56	96-056-01
J1	1/4"CLIFF TRS	39-118-01
J2	1/4"CLIFF TRS	39-118-01
J3	1/4"CLIFF TRS	39-118-01
J4	1/4"CLIFF TRS	39-118-01
J5	1/4"CLIFF TRS	39-118-01
J6,106	1/4"CLIFF T/S	39-116-01
J7,107	1/4"CLIFF T/S	39-116-01
J8	11 PIN HEADER	17-310-11
J9-21	.250"FASTON TAB	17-836-01
J22	GROUND LUG	17-500-01

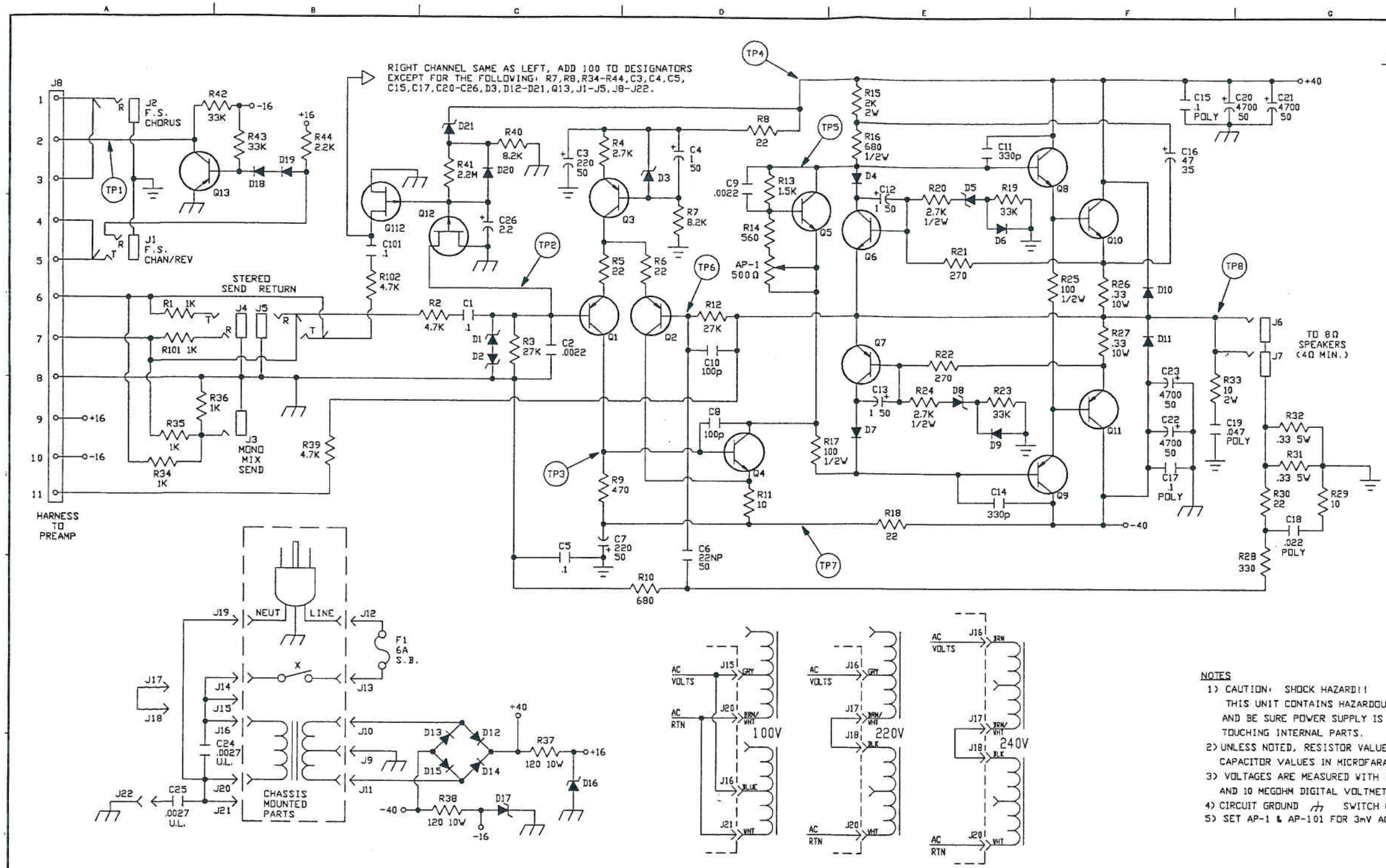
MISC.

QUANTITY	DESCRIPTION	PART NUMBER
2	FUSE CLIP	23-926-01
1	6A S.B. FUSE	23-307-01
6	4-40 X 1/2"SCREW	30-408-52
6	4-40 NUT	30-442-52
10	6-32X9/16 SCREW	30-639-52
10	6-32 NUT	30-700-01
1	HEATSINK BRACKET	33-130-01
2	TO-66 HEATSINK	33-601-01
4	TO-220 INSULATOR	35-003-02
4	NYLON BUSHING	35-043-01
4	TO-3 INSULATOR	35-579-01
1	G-130CXL P.C. BD.	06A430-01

NOTES: 1) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE IN OHMS 1/4 WATT, 5%. ALL CAPACITORS ARE IN MICROFARADS AND HAVE A 50 VOLT RATING (MINIMUM).

REV "D" ART

TOLERANCES (EXCEPT AS NOTED)	REVISIONS NO.	DATE	BY	JLM ELECTRONICS
DECIMAL ±	1	10-1-90		G-130CXL POWER AMP
FRACTIONAL ±	2			DRAWN
ANGULAR ±	3			CHK'D
	4			TRACED
	5			SCALE 1:2
				DATE
				APP'D
				MATERIAL
				DRAWING NO 06A430-01



EXPORT WIRING

DESIGNATOR	DESCRIPTION	PART NUMBER
AP1,101	500 OHM TRIM	71-501-02
D1,2,5,8	1N746	21A146-01
D101,102,105	1N746	21A146-01
D108	1N746	21A146-01
D3	1N4740	21A440-01
D4,7,18-20	1N914	21A914-01
D104,107	1N914	21A914-01
D6,9,106,109	1N3070	21A370-01
D10,11,110,111	1N5393	21A593-01
D12-15	G1752	21-752-01
D16,17	1N5353	21-553-01
D21	1N4749	21A449-01
Q1,2,3,7,13	MPS A56	96-056-01
Q101,102,103	MPS A56	96-056-01
Q107	MPS A56	96-056-01
Q4,104	2N3440	96-340-01
Q5,105	2N3402	96-342-01
Q6,106	MPS A06	96-006-01
Q8,108	TIP 31C	96-031-03
Q9,109	TIP 32C	96-032-03
Q10,110	MJ15001	96-101-01
Q11,111	MJ15002	96-102-01
Q12,112	J176	96-176-01
J1-5	1/4"CLIFF TRS	39-118-01
J6,106	1/4"CLIFF T/S	39-116-01
J7,107	1/4"CLIFF T/S	39-116-01
J8	11 PIN HEADER	17-310-11
J9-21	.250"FASTON TAB	17-836-01
J22	GROUND LUG	17-500-01

TEST POINTS	VOLTAGE (RMS)	VOLTAGE (DC)
1		-15
2	.32	.7
3		38
4		39
5		4.2
6		.7
7		38.5
8	19	

CONDITIONS: TEST POINTS AND VOLTAGES TO BE SAME FOR BOTH CHANNELS.

NOTES

1) CAUTION: SHOCK HAZARD!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/4W-5% TOL. CAPACITOR VALUES IN MICROFARADS, 50V-10% TOL.
3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.
4) CIRCUIT GROUND ⏚ SWITCH GROUND ⏚ CHASSIS GROUND ⏚
5) SET AP-1 & AP-101 FOR 3mV ACROSS R26,R27,R126 AND R127.

16-130-01 REFLECTS P.C.B. 06A530-01

16-131-01 REFLECTS P.C.B. 06A530-02

CAUTION:
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

REV	DATE	BY	CHK'D	DESCRIPTION
4	10/22/92	TEXT		CHANGED DRAWING TITLE
3	7/2/92	SWR		CHANGED R62 FROM:1.5K TO:2.2K (-02 VERSION ONLY)
B	03/14/91	MGA		SEE SHEET 1
A	9-13-90	ML		SEE SHEET 1

SIGNATURES:		DATE:
DRAWN:	ML	7/26/90
CHK'D:	TEK	7-26-90
APP'D:	TEK	7-26-90
ORIGINAL ISSUED:		
PLOT DATE:		10/20/92
PLOT TIME:		09:49:34
FILE NAME:		-1300114

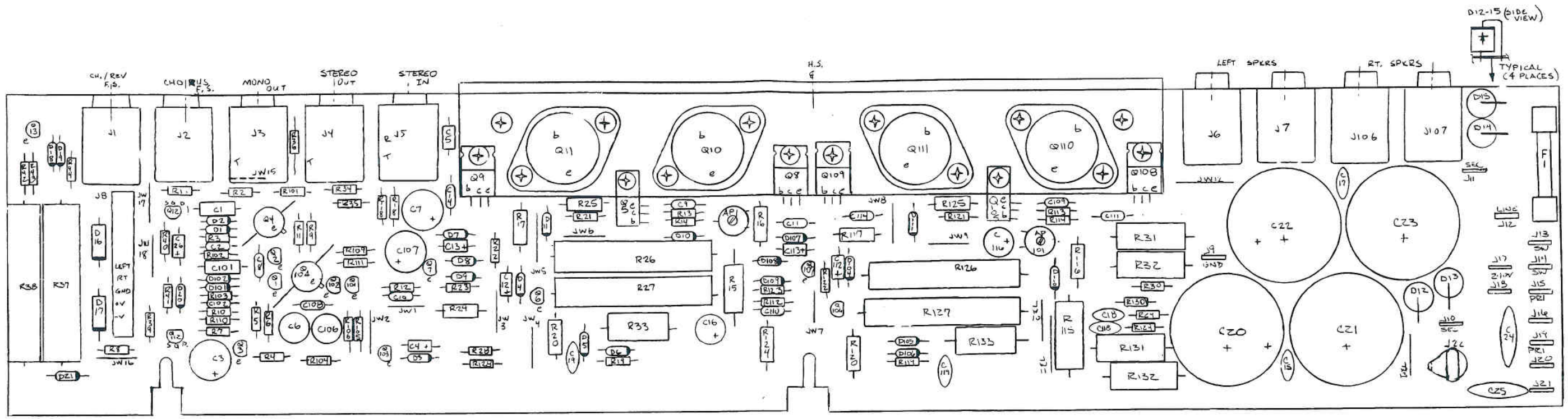
11680 BORMAN DR.
ST. LOUIS, MISSOURI
63146

PROJECT NAME: GX-130C/GX-130CH

DRAWING NAME: SCHEMATIC DRAWING

DRAWING NO. 16-130-01 (XL) 16-131-01 (XLH)

SCALE: NONE SHEET: 2 of 2



DESIGNATOR	DESCRIPTION	PART NUMBER
R1,101	1K	76-102-01
R2,102	4.7K	76-472-01
R3,103	27K	76-273-01
R4,104	2.7K	76-272-01
R5,105	22	76-220-01
R6,106	22	76-220-01
R7	8.2K	76-822-01
R8	22	76-220-01
R9,109	470	76-471-01
R10,110	680	76-681-01
R11,111	10	76-100-01
R12,112	27K	76-273-01
R13,113	1.5K	76-152-01
R14,114	560	76-561-01
R15,115	2K 2W	78-202-01
R16,116	680 1/2W	77-680-01
R17,117	100 1/2W	77-101-01
R18,118	22	76-220-01
R19,119	33K	76-333-01
R20,120	2.7K 1/2W	77-272-01
R21,121	270	76-271-01
R22,122	270	76-271-01
R23,123	33K	76-333-01
R24,124	2.7K 1/2W	77-272-01
R25,125	100 1/2W	77-101-01
R26,126	.33 10W	78-330-10
R27,127	.33 10W	78-330-10
R28,128	330	76-331-01
R29,129	10	76-100-01
R30,130	22	76-220-01
R31,131	.33 5W	78-330-05
R32,132	.33 5W	78-330-05
R33,133	10 2W	78-100-01
R34	1K	76-102-01
R35	1K	76-102-01
R36	1K	76-102-01
R37	120 10W	78-121-10
R38	120 10W	78-121-10
R39	4.7K	76-472-01
R40	8.2K	76-822-01
R41	2.2M	76-225-01
R42	33K	76-333-01
R43	33K	76-333-01
R44	2.2K	76-222-01
JW1-18	JUMPER	76-000-05
AP1,101	500 OHM TRIM	71-501-02

DESIGNATOR	DESCRIPTION	PART NUMBER
C1,101	.1	10A104-01
C2,102	.0022	10A222-01
C3	220/50	12-227-02
C4	1/50	12A105-51
C5	.1	10A104-01
C6,106	22 N.P.	12-226-81
C7,107	220/50	12-227-02
C8,108	100P	10A101-21
C9,109	.0022	10A222-01
C10,110	100P	10A101-21
C11,111	330P	10A331-11
C12,112	1/50	12A105-51
C13,113	1/50	12A105-51
C14,114	330P	10A331-11
C15	.1 POLY	10-104-03
C16,116	47/35	12-476-32
C17	.1 POLY	10-104-03
C18,118	.022 POLY	10-223-02
C19,119	.047 POLY	10-473-03
C20	4700/50	12-478-52
C21	4700/50	12-478-52
C22	4700/50	12-478-52
C23	4700/50	12-478-52
C24	.0027	10-272-01
C25	.0027	10-272-01
C26	2.2/50	12A225-51
D1,101	1N746	21A146-01
D2,102	1N746	21A146-01
D3	1N4740	21A440-01
D4,104	1N914	21A914-01
D5,105	1N746	21A146-01
D6,106	1N3070	21A370-01
D7,107	1N914	21A914-01
D8,108	1N746	21A146-01
D9,109	1N3070	21A370-01
D10,110	1N5393	21A593-01
D11,111	1N5393	21A593-01
D12	G1752	21-752-01
D13	G1752	21-752-01
D14	G1752	21-752-01
D15	G1752	21-752-01
D16	1N5353	21-553-01
D17	1N5353	21-553-01
D18	1N914	21A914-01
D19	1N914	21A914-01
D20	1N914	21A914-01
D21	1N4749	21A449-01

DESIGNATOR	DESCRIPTION	PART NUMBER
Q1,101	MPS A56	96-056-01
Q2,102	MPS A56	96-056-01
Q3,103	MPS A56	96-056-01
Q4,104	2N3440	96-340-01
Q5,105	2N3402	96-342-01
Q6,106	MPS A06	96-006-01
Q7,107	MPS A56	96-056-01
Q8,108	TIP 31C	96-031-03
Q9,109	TIP 32C	96-032-03
Q10,110	MJ15001	96-101-01
Q11,111	MJ15002	96-102-01
Q12,112	J176	96-176-01
Q13	MPS-A56	96-056-01
J1	1/4"CLIFF TRS	39-118-01
J2	1/4"CLIFF TRS	39-118-01
J3	1/4"CLIFF TRS	39-118-01
J4	1/4"CLIFF TRS	39-118-01
J5	1/4"CLIFF TRS	39-118-01
J6,106	1/4"CLIFF T/S	39-116-01
J7,107	1/4"CLIFF T/S	39-116-01
J8	11 PIN HEADER	17-310-11
J9-21	.250"FASTON TAB	17-836-01
J22	GROUND LUG	17-500-01

MISC.

QUANTITY	DESCRIPTION	PART NUMBER
2	FUSE CLIP	23-926-01
1	6A S.B. FUSE	23-307-01
6	4-40 X 1/2"SCREW	30-408-52
6	4-40 NUT	30-442-52
10	6-32X9/16 SCREW	30-639-52
10	6-32 NUT	30-700-01
1	HEATSINK BRACKET	33-130-01
2	TO-66 HEATSINK	33-601-01
4	TO-220 INSULATOR	35-003-02
4	NYLON BUSHING	35-043-01
4	TO-3 INSULATOR	35-579-01
1	G-130CXL P.C. BD.	06A430-01

NOTES: 1) UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE IN OHMS 1/4 WATT, 5%. ALL CAPACITORS ARE IN MICROFARADS AND HAVE A 50 VOLT RATING (MINIMUM).

Rev ③ Rev "5" Art
Rev ② Rev "D" Art

TOLERANCES	REVISIONS			SLM CLOCKWORKS
DECIMAL	NO	DATE	BY	GX-130C POWER AMP
FRACTIONAL	1	10-1-90		
ANGULAR	2	11/27/		DRAWN 1.7X MATERIAL
	3			CHK'D DATE DRAWING NO
	4			TRACED APP'D 07A430-01
	5			

07A430-01 "1" 1 of 1
GX-130CXL Power Amp
UWS REV. 2